



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor
Toni Hardesty, Director

September 23, 2005

Certified Mail No.7005 0390 0003 2967 8052

Murray Dalglish
Superintendent
Council School District
P.O. Box 68
Council, ID 83612

RE: Facility ID No. 003- 00006, Council School District, Council
Final Permit Letter

Dear Mr. Dalglish:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct No. P-050022 to the Council School District for the construction of a wood-fired boiler, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on April 28, 2005. This permit does not release Council School District from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Boise Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

M. Wilkerson for:

Martin Bauer, Administrator
Air Quality Division

MB/SYC/sd

Permit No. P-050022

Enclosures



**Air Quality
PERMIT TO CONSTRUCT**
**State of Idaho
Department of Environmental Quality**

PERMIT No.: P- 050022

FACILITY ID No.: 003-00006

AQCR: 63

CLASS: B

SIC: 8211

ZONE: 11

UTM COORDINATE (km): 544.4, 4,952.6

1. **PERMITTEE**
Council School District

2. **PROJECT**
Initial Permit to Construct – Wood-fired boiler

3. **MAILING ADDRESS**
P.O. Box 68

CITY
Council

STATE
ID

ZIP
83612

4. **FACILITY CONTACT**
Murray Dalgleish

TITLE
Superintendent

TELEPHONE
(208) 253-4223

5. **RESPONSIBLE OFFICIAL**
Murray Dalgleish

TITLE
Superintendent

TELEPHONE
(208) 253-4223

6. **EXACT PLANT LOCATION**
UTM Coordinates 544.4 km East, 4,952.6 km North, Zone 11, 1927 NAD

COUNTY
Adams

7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**
Educational Services – School District

8. **GENERAL CONDITIONS**

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.


TONI HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: September 23, 2005

Table of Contents

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE.....	3
1. PERMIT TO CONSTRUCT SCOPE	4
2. WOOD-FIRED BOILER.....	5
3. PERMIT TO CONSTRUCT GENERAL PROVISIONS.....	7

Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AQCR	Air Quality Control Region
Btu	British thermal units
Btu/hr	British thermal units per hour
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
gr	grain (1 lb = 7,000 grains)
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
O&M	Operations and Maintenance
MMBtu/hr	million British thermal units per hour
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
SIC	Standard Industrial Classification
UTM	Universal Transverse Mercator

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P- 050022

Permittee:	Council School District	Facility ID No. 003-00006	Date Issued:	September 23, 2005
Location:	Council, Idaho			

1. PERMIT TO CONSTRUCT SCOPE***Purpose***

- 1.1 This permit to construct (PTC) allows for the construction of a wood-fired boiler. This PTC is the initial permit for the boiler.

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2	<u>Wood Fired Boiler</u> Manufacturer: Hurst Boiler/Messersmith Combustor Rated Heat Input Capacity (MMBtu/hr): 2.5 Stack Height (ft): 34 Stack Diameter (ft): 1.5 Exhaust gas volume (acfm): 1250 Exhaust gas temperature (°F): 350	None

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P- 050022

Permittee:	Council School District	Facility ID No. 003-00006	Date Issued:	September 23, 2005
Location:	Council, Idaho			

2. WOOD-FIRED BOILER**2.1 Process Description**

The wood-fired boiler consists of a Hurst Boiler and a Messersmith Combustor, a gasifying, multi-chamber wood waste combustion system. The Messersmith Combustor is a sloped grate assembly fed by a stoker auger.

2.2 Emissions Control Description

Emissions from the wood-fired boiler are uncontrolled.

Table 2.1 WOOD FIRED HOT WATER BOILER

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Wood-fired boiler	None	Boiler stack

Emissions Limits**2.3 Emissions Limit**

Formaldehyde emissions from the wood-fired boiler stack shall not exceed 39.6 pounds per year.

2.4 Opacity Limit

Emissions from the wood-fired boiler stack, or any other stack, vent, or functionally equivalent opening associated with the wood-fired boiler, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

2.5 Fuel-Burning Equipment – Particulate Matter Standards

The permittee shall not discharge PM to the atmosphere from any fuel-burning equipment in excess of 0.080 gr/dscf of effluent gas corrected to 8% oxygen by volume for wood products.

Operating Requirements**2.6 Boiler Operations**

The permittee shall operate the boiler in accordance with manufacturer's recommendations and specifications.

2.7 Annual Fuel Usage Limit

The maximum annual fuel usage shall not exceed 618 tons per any consecutive 12-month period.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P- 050022

Permittee:	Council School District	Facility ID No. 003-00006	Date Issued:	September 23, 2005
Location:	Council, Idaho			

Monitoring and Recordkeeping Requirements**2.8 Annual Fuel Usage Monitoring and Recordkeeping**

The permittee shall monitor and record daily and monthly, the number of hours the boiler operates. The permittee shall then calculate the monthly fuel usage using Eq.1 below, or a DEQ-approved alternative. Annual fuel usage shall be determined by summing each monthly fuel usage, determined using Eq.1, over the previous consecutive 12-month period to demonstrate compliance with Permit Condition 2.7.

Eq.1 Monthly fuel usage (tons/month) = monthly hours of operation x 0.2315

$$\begin{aligned}\text{Where: } 0.2315 &= \text{boiler heat input rate / wet fuel heat value} \\ &= (2.5 \times 10^6 \text{ Btu/hr}) / [(9,000 \text{ Btu/bone dry lb}) \times ((1 - \text{fuel moisture content, 40\%}) \text{ bone dry lb/ 1 lb of fuel as received})] \times (1 \text{ ton/2000 lb}) \\ &= (2.5 \times 10^6 \text{ Btu/hr}) / (5,400 \text{ Btu/lb wet wood}) (1 \text{ ton/2000lb})\end{aligned}$$

The most recent two years' compilation of records shall be kept onsite and shall be made available to Department representatives upon request.

2.9 Manufacturer's Recommendations and Specifications for the Operation of the Wood-Fired Boiler

The permittee shall maintain the manufacturer's recommendations and specifications for the operation of the wood-fired boiler on site at all times and shall make them available to DEQ representatives upon request. A copy of the document shall be submitted to DEQ's Boise Regional Office at the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706

Reporting Requirements**2.10 Reporting**

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for any exceedance of any emissions limits contained in Permit Conditions 2.3, 2.4, and 2.5 during startup, shutdown, scheduled maintenance, safety measures, upset and breakdown.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P- 050022

Permittee:	Council School District	Facility ID No. 003-00006	Date Issued:	September 23, 2005
Location:	Council, Idaho			

3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
 - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
 - Initiation of Construction - Date
 - Completion/Cessation of Construction - Date
 - Actual Production Startup - Date
 - Initial Date of Achieving Maximum Production Rate - Production Rate and Date
6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P- 050022

Permittee:	Council School District	Facility ID No. 003-00006	Date Issued:	September 23, 2005
Location:	Council, Idaho			

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.